V.—Note on the Genus Ithagenes. By E. C. Stuart Baker, M.B.O.U.

(Plate III.)

N 1899, when Bowdler Sharpe wrote the first volume of the Hand-list of the Birds,' only three species of this genus of beautiful Blood-Pheasants were then known (Hand-list, tol. i. p. 33), i. e., Ithagenes cruentus, I. geoffroyi, and sinensis. In August 1912 Becbe published the description of a new species, which he named I. kuseri, and a new subspecies of I. cruentus which he called I. c. affinis Zoologica,' New York, U.S.A., vol. i. No. 10), and finally have described I. tibetanus\* from a bird obtained by apt. Molesworth in Tibet.

As regards the forms enumerated by Sharpe, there can eno hesitation in accepting all three as perfectly good becies well differentiated from one another and with no onnecting links; but, with regard to both *I. tibetanus* and kuseri, there may possibly be some doubts as to whether they should rank higher than subspecies. In their principal bints of coloration the three forms are the same, or affer only in intensity or degree of colouring. As Beebe bints out, when the three birds are laid out, one notices to once that they are grey birds with three brilliant zones of crimson on the ventral surface, chin, mid-breast, and under tail-coverts."

These zones, more especially that on the breast, vary very reatly, not only in the three species, but in individuals the same species; and if differentiation depended on this one, I should certainly reduce both I. kuseri and I. tibetanus the rank of subspecies of I. cruentus, and indeed, when est exhibiting some specimens of I. kuseri, I treated it as a abspecies of that bird. The distribution, however, of the rimson on the head and the difference in the amount and osition of the black would appear to point to the validity of the species: especially is this the case with I. kuseri, of which

<sup>\*</sup> Bull. B. O. C. xxxv. 1914, p. 18.



Fig. 2. ITHAGENES CRUENTUS.

I have now been able to examine ten specimens, seven males and three females, and in all these birds the differences existing between this species and *I. cruentus* hold good.

Of *I. tibetanus* there is at present but one specimen, the type, and it is possible, though I think not probable, that when we obtain a series, it may be found that the two birds do grade into one another, and, if this is so, *I. tibetanus* must accordingly be reduced to a subspecies.

The differences between the three species have already been pointed out, and are well shown by the coloured figures of the heads which illustrate these notes (Plate III.).

In *I. cruentus* we find the forehead, supercilium, lores, and a line under the eye black. In *I. kuseri* and *I. tibetanus* the forehead is crimson, and in both also the lores and supercilium are crimson, but in *I. kuseri* the two last are mixed with black to some extent. This is a point strongly against the theory of the birds being subspecies, for *I. kuseri* and *I. cruentus* are the two farthest apart geographically, and we should therefore have expected to find the intermediate supercilium and lores in *I. tibetanus*, which occupies an intermediate geographical area.

All three species have a certain amount of black marking on the feathers of the foreneck, and posterior to the ear-coverts and sides of the neck; but in perfect specimens of *I. kuseri* this black forms an almost perfect gorget round the crimson of the throat, extending through and behind the ear-coverts right up to the grey crest. Here, again, the bird which should be intermediate, *I. tibetanus*, has the least black, indeed practically none.

Beebe mentions the green wing-patch as one of the features distinguishing *I. kuseri* from *I. cruentus*, and as showing the manner in which it approaches *I. geoffroyi*, but, as a matter of fact, when big series of the two first mentioned species are examined, the differences in this respect are not very marked.

In the plumage of the lower parts, the three birds also differ conspicuously; in *I. cruentus* and *I. tibetanus* the distribution is much the same, *i. e.*, crimson throat, pale

foreneck, and extreme upper breast marked with black; erimson and pale green breast and flanks, and erimson under tail-coverts. In *I. tibetanus*, however, the black on the foreneck is reduced to a minimum, the tone of the pale part is less pronounced and is less in extent, and the crimson is the main colour on each feather of the breast instead of broad splashes of this colour here and there.

Further minor differences are to be seen in the almost complete want of green on the flanks and abdomen of *I. tibetanus*, and also in the feathers of the chin and throat in this bird being a purer and brighter crimson, with no black lores or black tinge on the chin.

In *I. kuseri* the whole of the breast is practically crimson, the pale green strike to the centres of the feathers being very narrow, and not spatulate as in *I. cruentus*. Moreover, there is no pale interspace between the throat and the breast, the only interruption being the black gorget, which in some cases is mixed with crimson. Taking all these differences into consideration, for the present I consider it desirable to keep the three forms distinct with the status of species.

As regards Beebe's subspecies *I. c. affinis*, after a very careful and exhaustive examination of over fifty males and as many females, I find I am unable to endorse his conclusions.

Beebe says (loc. cit.) that the principal differences between I. cruentus and I. affinis are:—

- (1) The much greater extent of crimson on the breast of typical *I. cruentus* and the almost total absence of crimson on that of *I. affinis*.
- (2) The two outermost pairs of rectrices in *I. affinis* have no crimson edges as against the outermost pair only in *I. cruentus*.

To strengthen this argument, Beebe eliminates the Darjiling birds from his new subspecies, and says that these birds probably come from near Nepal, and should therefore be nearest typical *I. crnentus*. Darjiling is, of course, in southern Sikkim, and if the birds were obtained near this place as labelled, they should be of Beebe's southern form

I. affinis; those he has examined, however, were nearer I. cruentus than I. affinis, so that he appears merely to have guessed that they came from Nepal rather than from Sikkim, without, perhaps, quite sufficient data. In some cases, notably those in Hume's collection, collected by Otto Möller, the label Darjiling usually does mean Sikkim, and not Nepal, so it is quite certain that Beebe's diagnosis of "Darjiling" will not invariably hold good.

But I find that even if we allow Darjiling birds to be considered as coming from Nepal, it does not help his definition much, if at all. Thus, there are two birds in the British Museum labelled Darjiling in which the central crimson zone is praetically absent, in one bird being represented by a single crimson splash, and in the other by five or six. Yet, according to Beebe, these should be heavily splashed like the Nepal birds. Of the other six Darjiling males I have examined, three have the breast fairly well marked as crimson, and three have it marked as heavily as in the type of I. cruentus, which is a Nepal bird. Of the seven birds from Nepal, all have the breast fairly heavily marked with crimson, but one of these is really a Sikkim bird, and has the original label so marked.

Of the birds marked "Sikkim," two have unmarked, or nearly unmarked, breasts, two have this part fairly well marked with crimson, and one has it heavily marked.

Referring next to the number of exterior tail-feathers with crimson fringes, I find that of 47 males in the British Museum Collection, the division works out as follows:—

Birds labelled	With two pairs unmarked.	With one pair unmarked.
Darjiling	4	4
Interior of Sikkim	5	3
Nepal	2	5
Native Sikkim		11
Т	otal 24 To	otal 23

In consequence of the above result of my examination, I am unable to sustain I. affinis as a good subspecies.

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I should, however, before finally leaving the question as to the value of this subspecies, refer to Beebe's paragraph (p. 192), in which he says: "In regard to the females, those from Nepal show on the whole much more crimson than birds from Sikkim. Taking the character of a distinct crimson band," etc. After a most careful examination of all the females in the British Museum and elsewhere, and of the few which have come into my hands direct, I can find no trace of crimson anywhere. He also adds: "The crimson colour on the margins of the rectrices, which I have never found absent from a Nepalesc female"; this crimson also I have been unable to discover.

A simple key to the five known species of Ithagenes is the following:—

## Key to the Species of Ithagenes.

## Males.

A. Throat and chin crimson.	
a. Forehead black	I. cruentus.
b. Forehead crimson.	
a <sup>1</sup> . Anterior ear-coverts and gorget black	I. kuseri.
b1. Anterior ear-coverts yellowish with black	
edges. No gorget	I. tibetanus.
B. Throat and chin not crimson.	
c. Inner secondaries and greater coverts of wing	
partly green	I. geoffroyi.
d. Inner secondaries and greater coverts of wing	
partly tan brown	I. sinensis.
Females.	
Females.  A. Feathers of face and sides of head bright ochrebrown, contrasting with grey crown.	
A. Feathers of face and sides of head bright ochrebrown, contrasting with grey crown.	I. cruentus,
<ul><li>A. Feathers of face and sides of head bright ochrebrown, contrasting with grey crown.</li><li>a. General plumage rufous brown</li></ul>	I. cruentus. I. kuseri.
<ul> <li>A. Feathers of face and sides of head bright ochrebrown, contrasting with grey crown.</li> <li>a. General plumage rufous brown</li> <li>b. General plumage brown</li> </ul>	
<ul> <li>A. Feathers of face and sides of head bright ochrebrown, contrasting with grey crown.</li> <li>a. General plumage rufous brown</li> <li>b. General plumage brown</li> <li>B. Feathers of face and sides of head grading into</li> </ul>	
<ul> <li>A. Feathers of face and sides of head bright ochrebrown, contrasting with grey crown.</li> <li>a. General plumage rufous brown</li> <li>b. General plumage brown</li> <li>B. Feathers of face and sides of head grading into and not contrasting with grey crown.</li> </ul>	I. kuseri.
<ul> <li>A. Feathers of face and sides of head bright ochrebrown, contrasting with grey crown.</li> <li>a. General plumage rufous brown</li> <li>b. General plumage brown</li> <li>B. Feathers of face and sides of head grading into and not contrasting with grey crown.</li> <li>c. General plumage grey brown</li> </ul>	I. kuseri, I. geoffroyi.
<ul> <li>A. Feathers of face and sides of head bright ochrebrown, contrasting with grey crown.</li> <li>a. General plumage rufous brown</li> <li>b. General plumage brown</li> <li>B. Feathers of face and sides of head grading into and not contrasting with grey crown.</li> </ul>	I. kuseri. I. geoffroyi. I. sinensis.

The distribution of the five species has not yet been

completely worked out, and much country has still to be covered in which some form of Blood-Pheasant will ecrtainly be found, but, roughly speaking, we may define their limits somewhat as follows:—

I. cruentus is found practically throughout Nepal, except in the extreme west, where probably the Gogra River forms its western boundary. Eastwards through Sikkim it works into western Bhutan, but its eastern limits are not yet defined. Southwards in Nepal it is found as far as the higher ranges extend, but does not apparently venture below 8000 feet, even in the coldest weather. In Sikkim it is obtained as far south as the extreme end of the Singalila range, and perhaps even farther south on the Dumsang range, northwest of Darjiling, whence I have received a nest of Horornis, containing numerous feathers of a Blood-Pheasant. Northwards in Tibet we do not yet know how far it goes, but I have reports of its existence in the Chambi Valley.

As regards *I. tibetanus* we have but the one bird, which was taken on the Sela Range, above Tawang, at about 13,000 feet in south-east Tibet. It is possible, therefore, that this species inhabits the area in eastern Bhutan and Tibet, which is bounded by the Dihong or Brahmapootra River.

I. kuseri, which was originally obtained on the Mekong River in north-west Yunnan, is now known to extend from the Mishmi and Abor Hills east of the Dihong round through the higher ranges of Burma and Yunnan into the north of the North Shan States.

I. geoffroyi is found in the extreme south-east of Tibet, and the Szechuen Mountains in west and west-central China.

I. sinensis is found in the higher ranges of the Shen-si and Kansu provinces north and east of the area inhabited by the last bird.

In an article entitled "Preliminary Pheasant Studies," which appeared in 'Zoologica,' vol. i. No. 15, Beebe has written a most interesting account of how he proposes to divide the genera of the family Phasianide into groups or

subfamilies, according to the manner in which they moult their tail-feathers. According to this system, *Ithagenes* would obtain a place amongst the Perdieinæ or true Partridges. In habits it would, however, appear to come very close to the Tetraonidæ, and the eggs of *I. geoffroyi* and *I. kuseri*, which appear to be the only ones known at present, are exactly like weakly marked eggs of the Grey Hen.

## VI.—A Few Notes on Tetrao urogallus and its Allies. By Collingwood Ingram, M.B.O.U.

When working at my Pyrenean specimens of Capercaillie, I found it necessary to go rather more deeply into the study of this group of birds than I had at first intended, and in the course of my investigations I have been forced to examine a large number of examples. The opinions expressed below are principally based on the fine series contained in the Tring and British Museums and the mounted specimens in the Marmottan collection now preserved in the Muséum d'Histoire Naturelle of Paris.

Although at first sight the Capercaillic appears to be a somewhat variable species, not only in dimensions, size of bill, &c. (which depend partly upon the age of the individual), but also in the plumage of the female, it will be found that these differences have their limitations within certain geographical areas, and when a greater mass of material is brought together and the whole group earefully reviewed, a number of fairly well-defined local races will no doubt be distinguishable.

Brehm, of course, recognised several forms of this bird, and three of these he maintained, in his 'Vogelfang' (p. 87)\*, viz.: (1) the typical *Tetrao urogallus* of Linnæus, ranging from central Germany northwards; (2) *Tetrao major* (which he describes as a larger bird with a thicker bill), also

<sup>\*</sup> In the present paper I have intentionally avoided all reference to obvious hybrids or aberrations.